

MEMORANDUM

DATE: October 4, 1988
TO: FIT STAFF
FROM: David Klatt
SUBJECT: [REDACTED]

This memo was compiled to clarify the status of oil and gasoline sites which are accumulating in FIT files. Specifically, this memo will provide guidance in deciding whether a site can be excluded from consideration under CERCLA and it will also provide a standard format to be used in notifying the EPA of a site's petroleum exclusion status.

According to CERCLA Section 101(14) and Section 104(a)(2) "Petroleum, including crude oil or any fraction thereof" is specifically excluded from the list of approximately 714 toxic substances which are defined in CERCLA as "Hazardous Substances" and as "Pollutants or Contaminants".

In considering whether or not a potential petroleum related site warrants further action by FIT, review the information contained in the file and determine the status of the site in relation to the following criteria.

- o The source of the suspected petroleum substance release must be identified. If a source cannot be identified with a high degree of certainty, FIT should continue its investigation of the site. Without positive identification of a source, it is very difficult to categorize several detected contaminants as "Petroleum". The presence of suspected petroleum related contaminants in soil or water matrices at a particular location adjacent to a gas^{STATION} or



o refinery is not sufficient proof to exclude the site from consideration under CERCLA. Some documentation of a release from a particular source is required;

o Analytical data of samples collected from the site or direct observation of a petroleum release are required to document the characteristics of waste at a site. Reports of an "oily film" or "gasoline odor" are not sufficient evidence to replace analytical data;

o All hazardous substances detected at the site must be constituents of petroleum products in order for the site to be excluded from consideration under CERCLA. If a single CERCLA-regulated non-petroleum related substance is detected or known to be present at a site, PIT can continue its investigation of the facility based on a release or potential release of that substance alone;

o The petroleum exclusion includes hazardous substances which are inherent in petroleum and hazardous substances normally mixed with petroleum during the refining process. Additives such as anti-knock agents and octane boosters are included in the group and as such they are excluded from consideration under CERCLA. Hazardous substances added to or mixed with petroleum products after refinement are not included under the petroleum exclusion. For example, PCBs mixed with oil are not excluded and should be addressed by PIT.

o It is important to understand that many petroleum constituents such as toluene and xylene are listed individually in CERCLA as regulated substances, and as such, can be evaluated under CERCLA in and of themselves. However, when these and other petroleum constituents are detected en masse in the vicinity of a known petroleum release source, they may be considered to be "Petroleum"

under EPA's current interpretation of CERCLA. In this case FIT would probably exclude the site from further action. This determination will be site specific and should be made together with your manager.

- o Hazardous substances which accumulate in a petroleum product as a result of use are not part of the petroleum product and thus are not excluded from consideration under CERCLA. For example, heavy metals which accumulate in automotive crank-case oil are regulated under CERCLA and should be addressed by FIT. Contrary to common opinion, FIT pursues waste oil sites on the basis of the contaminants expected to be in the waste oil, not the oil itself.
- o Lead added to gasoline as an anti-knock agent is considered to be part of the petroleum product, and as such is excluded from consideration under CERCLA. From a practical standpoint, FIT will continue evaluation of sites where lead is detected unless it can be proven with a high degree of certainty that ALL of the lead contamination originated from a "leaded gasoline" release. Since that determination would be virtually impossible, and since other potential lead sources are numerous, FIT will continue to address lead contamination sites.
- o Pesticides which may have petroleum based components are not excluded and should be addressed by FIT.
- o Be aware that petroleum related wastes (EPA Hazardous Waste #'s K048-K052) including leaded tank bottoms, api separator sludge, heat exchanger bundle cleaning sludge, slop oil emission solids, and dissolved air flotation floats are specifically regulated under CERCLA as hazardous substances and should be addressed by FIT;
- o According to EPA's interpretation of the petroleum

exclusion, relative concentrations of detected petroleum constituent should be compared with each other to determine if the concentrations fall under "normal" levels associated with petroleum products. Since "normal" levels may fluctuate greatly depending on a number of factors, it may be difficult if not impossible to determine what "normal" levels contain. This will be the case for most sites. One case where a comparison of relative levels may be useful is when a facility has a history of handling both petroleum products and separate bulk quantities of a common petroleum constituent chemical such as toluene. In this case you would want to determine whether your analytical results indicate unusually high relative concentrations of toluene as compared to other gasoline constituents such as benzene or xylene. If the toluene concentration was comparatively high, FIT should probably continue investigation of the facility based on a potential toluene release.

The criteria listed above are by no means totally objective and easy to interpret. ^{AND NOT} All potential petroleum exclusion sites should be discussed with a manager. Several sources of information listing specific chemicals commonly found in petroleum products are included with this memo. Any additional information that you can obtain on the subject should be pooled for common use.

A boiler plate for use in writing petroleum exclusion memos is attached. An explanation of what should be included in each paragraph is provided on this copy. Blank copies will be available outside John Geiger's office. An example of a petroleum exclusion memo is also provided. This memo format has been approved by Don Josif. Dr. Josif has requested that FIT send these memoranda to the EPA in batches so that cease work orders can be written for a group of sites at once. Please check all current active work plans to see if they fall under the petroleum exclusion. Please complete the attached memo as soon as you can so that we can send a batch to Dr. Josif. Specific submittal details will be provided at a later date.